

Listing of Claims

1. (Previously presented) A refractometer comprising:
 - a refractometer prism, on a measuring surface of which a sample to be analyzed is placed;
 - a light source for illuminating the sample, wherein the light source comprises a plurality of discrete light sources;
 - a receiver for receiving light reflected from the sample; and
 - an optical diffraction grid for reflecting light from each of the discrete light sources into a single light point, wherein the light from each of the discrete light sources having different angle of incidence at the optical diffraction grid and same diffraction angle.
2. (Previously presented) The refractometer of claim 1, wherein the light source comprises a plurality of white light lamps arranged at preset spaced locations next to one another.
3. (Previously presented) The refractometer of claim 1, wherein the light source comprises a plurality of colored LEDs arranged at preset spaced locations next to one another.
4. (Previously presented) The refractometer of claim 3, wherein an interference filter, by means of which the light of the LEDs are filtered to a desired wavelength, is arranged downstream of each LED.
5. (Previously presented) The refractometer of claim 1, wherein the receiver is a one-dimensional CCD photodiode cell.
6. (Canceled)

7. (Previously presented) The refractometer of claim 4, wherein lenses, which optimize the transmission of the light through the interference filters at the same time and make possible a more defined effective wavelength and full width at half-maximum, are provided to improve the coupling of the light into discrete beam paths.

8. (Canceled)

9. (Canceled)

10. (Previously presented) The refractometer of claim 1, wherein a direct vision prism with dispersing property is provided instead of the optical diffraction grid.

11. (Previously presented) The refractometer of claim 1, wherein a monochromatic lens is provided instead of the optical diffraction grid.

12. (Previously presented) The refractometer of claim 1, wherein a transmission diffraction grid with dispersing property is provided instead of the optical reflection diffraction grid.

13. (Canceled)

14. (Previously presented) The refractometer of claim 1, wherein each light source in the plurality of discrete light sources emit different color light.

15. (Previously presented) The refractometer of claim 1, wherein each light source in the plurality of discrete light sources are activated individually or together.